CLAIMS

1. A printhead for producing ink drops that efficiently overlap one another, comprising:

a preprogramable scheme that creates addressable pixel locations of the ink drops and selectively fires the ink drops on a predetermined subset of the addressable pixel locations to produce a pseudo hexagonal grid pattern.

2. The printhead of claim 1, wherein the ink drops that are fired are of a dot size to cover NxN drops per square inch on a target print media.

3. The printhead of claim 1, wherein the pixel locations are addressibly defined by 2 x N drops per linear inch in at least one direction, and N drops in another direction.

4. The printhead of claim 1, wherein the pseudo hexagonal grid pattern has a total of NxN drops per square inch.

5. The printhead of claim 4, wherein the NxN ink drops per square inch are placed on an alternating set of odd and even pixel locations.

6. The printhead of claim 4, wherein the NxN ink drops per square inch are placed in an axis containing a 2N addressable resolution.

7. The printhead of claim 4, further comprising a nozzle member having a nozzle array axis associated with the firing of the ink drops and wherein the 2N resolution is orthogonal to the nozzle array axis.

8. The printhead of claim 4, further comprising a nozzle member having a nozzle array axis associated with the firing of the ink drops and wherein the 2N resolution is in the nozzle array axis.

9. The printhead of claim 4, wherein the 2N resolution is addressable in a single pass.

10. The printhead of claim 4, wherein the 2N resolution is addressable as a multiple pass.

11. The printhead of claim 1, wherein the ink drops are sized to be fired on an NxN grid to improve sensitivity to placement errors.

12. The printhead of claim 1, wherein the ink drops are reduced in size relative to sizing for NxN grid firing to reduce ink per area relative to NxN predefined drop firing requirements.

13. A method for producing ink drops that efficiently overlap one another, comprising:

creating addressable pixel locations of the ink drops; and

selectively firing the ink drops on a predetermined subset of the addressable pixel locations to produce a pseudo hexagonal grid pattern.

14. The method of claim 13, wherein the fired ink drops create an image on a printed media that is rasterized at an NxN resolution.

15. The method of claim 13, further comprising shifting locations of the ink drops with a 2NxN ink drop placement control within NxN pixels.

16. The method of claim 13, further comprising providing ink dot misplacement that balances ink dot size to decrease ink and decrease sensitivity to placement error.

17. A printing system for reducing sensitivity to ink dot placement errors, comprising:

an ink supply;

a printhead with a nozzle member fluidically coupled to the ink supply;

a processor coupled to the nozzle member and being preprogrammed with a correction scheme that creates addressable pixel

locations of the ink drops and selectively fires the ink drops on a predetermined subset of the addressable pixel locations to produce a pseudo hexagonal grid pattern.

18. The printing system of claim 17, wherein the nozzle member is preprogrammed with at least one of a single pass printing mode or a multiple pass printing mode.

19. The printing system of claim 17, wherein the ink dot placement pattern includes ink dots that vary in size.

20. The printing system of claim 17, wherein the ink droplets are ordered in a pattern that will eliminate random clustering of drops to decrease banding and create consistent color hues on the print media by performing at least one of doubling nozzle density with constant drop size or doubling columns per inch ink dots of the close pack ink patterns.

21. The printing system of claim 17, wherein the correction scheme includes doubling columns per inch ink dots of the close pack ink patterns.

22. The printing system of claim 17, wherein the correction scheme is controlled by a printer driver as software operating on a computer system that is connected to the printhead.

23. The printing system of claim 17, wherein the correction scheme is preprogrammed as firmware and incorporated into a controller connected to the printhead.

24. The printing system of claim 17, wherein the correction scheme is encoded on a memory device incorporated into printhead.

25. A printing system, comprising:

an ink jet printhead having a nozzle member with a nozzle array and ink drop generators that create drops of ink of a dot size suitable for

creating full area coverage when NxN drops per square inch are printed on a target print medium;

a programmable scheme coupled to the ink jet printhead for addressing pixel locations at 2xN drops per linear inch in at least one direction, and N drops in another direction at least one of parallel or orthogonal to the nozzle array and for selectively firing drops on a predetermined subset of the addressable pixel locations such that the resulting pattern of printed drops has a total of NxN drops per square inch; and

wherein the ink drops are placed on an alternating set of odd and even pixel locations in an axis containing 2N addressable resolution to create a pattern.

26. The printing system of claim 25, wherein the pattern is a pseudo-hexagonal drop overlap grid pattern.

27. The printing system of claim 26, wherein the 2N resolution is addressable in a single pass.

28. The printing system of claim 25, wherein the 2N resolution is addressable as a multiple pass.

29. The printing system of claim 25, wherein the ink drops are reduced in size relative to sizing for NxN grid firing to reduce ink per area relative to NxN predefined drop firing requirements.

30. The printing system of claim 25, wherein the fired ink drops create an image on a printed media that is rasterized at an NxN resolution.

31. The printing system of claim 25, wherein the scheme further includes shifting locations of the ink drops with a 2NxN ink drop placement control within NxN pixels.